DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-002540

Address: 333 Burma Road **Date Inspected:** 20-May-2008

City: Oakland, CA 94607

Project Name: SAS Superstructure **OSM Arrival Time:** 1400 **OSM Departure Time:** 2300 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Chen Chih-Ming, An Qingxiang CWI Present: Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No

Yes No N/A **Delayed / Cancelled:**

Bridge No: 34-0006 **Component:** OBG side and bottom panels and tower skin p

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG new assembly bay 2

QA observed ZPMC personnel tack welding floor beam FL-2-1 to FL-1 OBG section 16. No other welding was being performed in this bay at the time QA was present. QA also noted that ABF is continuing their survey of the OBG fixture.

Other general observations include ZPMC personnel grinding side and bottom panels and weld bevel prep.

New Tower Bay 1

QA performed 10% verification Magnetic particle Testing (MT) on the following skin plate weld joints: SSD1-SA178A/D-11B AND SSD1-SA178A/D-12B. The results of the test appeared to be in compliance with the contract documents.

QA noted that ZPMC qualified welding personnel had performed SAW welding of the root pass on the following skin plate joints: SSD1-SA18D/E-2, SSD1-SA18E/E-3A, SSD1-SA18D/E-3, SSD1-SA18D/E-5A, SSD1-SA18E/E-1, SSD1-SA18E/E-20.

WELDING INSPECTION REPORT

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New Tower Bay 2

QA observed ZPMC qualified welding personnel perform SAW on one side of the groove weld joining the following tower skin plate joints: ESD1-SA77A/E-36A and ESD1-SA77A/E-34A following the guide lines of approved WPS# WPS-B-T-2221-B-U3c-S and WPS-B-T-2221-B-U3c-S-1. QA observed 3 ZPMC Quality Control (QC) inspectors in the vicinity of the welding operations including ZPMC CWI identified as An Qingxiang. There were also 3 American Bridge/Fluor (ABF) QC inspectors in the area as well. QC monitored the welding process continuously throughout the evening. The welding parameters as measured with Quality Controls calibrated instruments appeared to be in conformance with the posted WPS's and were as follows:

ESD1-SA77A/E-36A SAW

Volts: 32.8 Amps: 649 Travel speed: 610mm/min

ESD1-SA77A/E-34A SAW

Volts: 33 Amps: 664 Travel speed: 612mm/min

Other general observations in the New Tower bays include ZPMC tack welding tower skin plates, weld bevel preparation, flame straightening, CNC parts cutting and grinding.





Summary of Conversations:

Only general conversations were held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Patrick Lowry (858)-344-2712, who represents the Office of Structural Materials for your project.

Inspected By:	Hall,Steven	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer